American Sycamore

(Platanus occidentalis)

The largest tree in the eastern U.S., Sycamores can live to be 500 years old. As they age, they usually begin to rot on the inside, creating natural cavities which provide excellent habitat for squirrels, raccoons, wood ducks, owls, and even people. Always found near rivers and streams, the white bark on the upper branches distinguish this grand tree from all others.

Wayne L. McClain

The largest Sycamore ever recorded in Ohio was found near Portsmouth along the Scioto river. "The tree was 21 feet in diameter, and 60 feet in circumference at its base. The opening of the tree was 10 feet wide and 9.5 feet high. In June 1808, 13 people on horseback entered the cavity of the tree, and it is stated that there was room for two more, but the remaining two horses in the group were too skittish to enter."

Historical Collections of Ohio, Henry Howe vol. II, 1888.

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Spring Wildflowers

The rich fertile soils and thick canopy of trees provide excellent habitat for many spring blooming wildflowers. These flowers must take advantage of the sunlight in early spring. Once the trees begin to leaf out they block much of the available sunlight from the low growing plants on the forest floor.

Dutchman's Breeches

Celandine Poppy

Virginia Bluebells

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During April and May Sycamore Park and the Wilson Nature Preserve are full of color as these flowers display their annual show of beauty.

Riparian Birds

Riparian forests provide important resting and feeding locations during spring and fall migration.

In summer, these areas are home to a variety of nesting birds, including Baltimore orioles, yellow warblers and ruby-throated hummingbirds. Nests are concealed in trees and insects provide a plentiful feast for hungry nestlings.

Photo: Frank Joa

Baltimore Oriole

Photo: Frank Joa

Yellow Warbler

Great Blue Heron

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Overwintering birds find seeds, nuts berries and insects to eat as well as shelter in the understory of riparian forests.

Invasive Plants

Invasive plants are not originally native to an area but have become well established. Many were introduced to North America as landscaping plants and have escaped from gardens.

Photo: Plant Conservation Alliance

Garlic Mustard

Bush Honeysuckle

Once invasive plants become established in a natural area, they displace native plants and reduce the overall biological diversity. To limit the spread of honeysuckle, garlic mustard, and other non - native plants, the Park District performs periodic invasive plant removals.

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Beaver

(Castor canadensis)

Though beaver are well known for their ability to stop flowing water, rivers with a consistent level are not dammed. Instead, beavers will dig bank burrows to use for shelter and raising young.

Photo: Ohio Division of Wildlife

Photo: Ohio Division of Wildlife

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Evidence of beaver is easy to find by looking for tree stumps, both small and large, with pointed ends about 2-3 feet off the ground.

Wood Duck

(Aix sponsa)

Wood Ducks start life a little differently than other ducks - up a tree! Tree cavities are used for nests and after hatching, the ducklings make a leap of up to 100 feet to reach the forest floor before making their way to nearby water. Large trees or nest boxes and quiet waterways are needed as nesting sites.

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Life Below the Water

Riparian forests not only improve habitat quality on land but water quality as well. Wooded stream corridors provide shade to the adjacent waterway and lower the water temperature. As the temperature of water decreases, the level of oxygen in the water increases.

Image courtesy: Ohio Chapter of the American Fisheries Soceity: *A Guide to Ohio's Streams*

With higher oxygen levels in the water, rivers and streams can support a greater diversity of aquatic organisms.

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Erosion

Water is a powerful force and can easily wash away bare land and soil sediments that will eventually make it into our waterways from surrounding fields and open spaces. Riparian forests slow the movement of water, allowing sediments to settle to the ground before reaching nearby streams.

Stopping these sediments keeps waterways clear and helps prevent problems associated with the lowered oxygen levels caused by high turbidity (amount of suspended solids in the water) levels.

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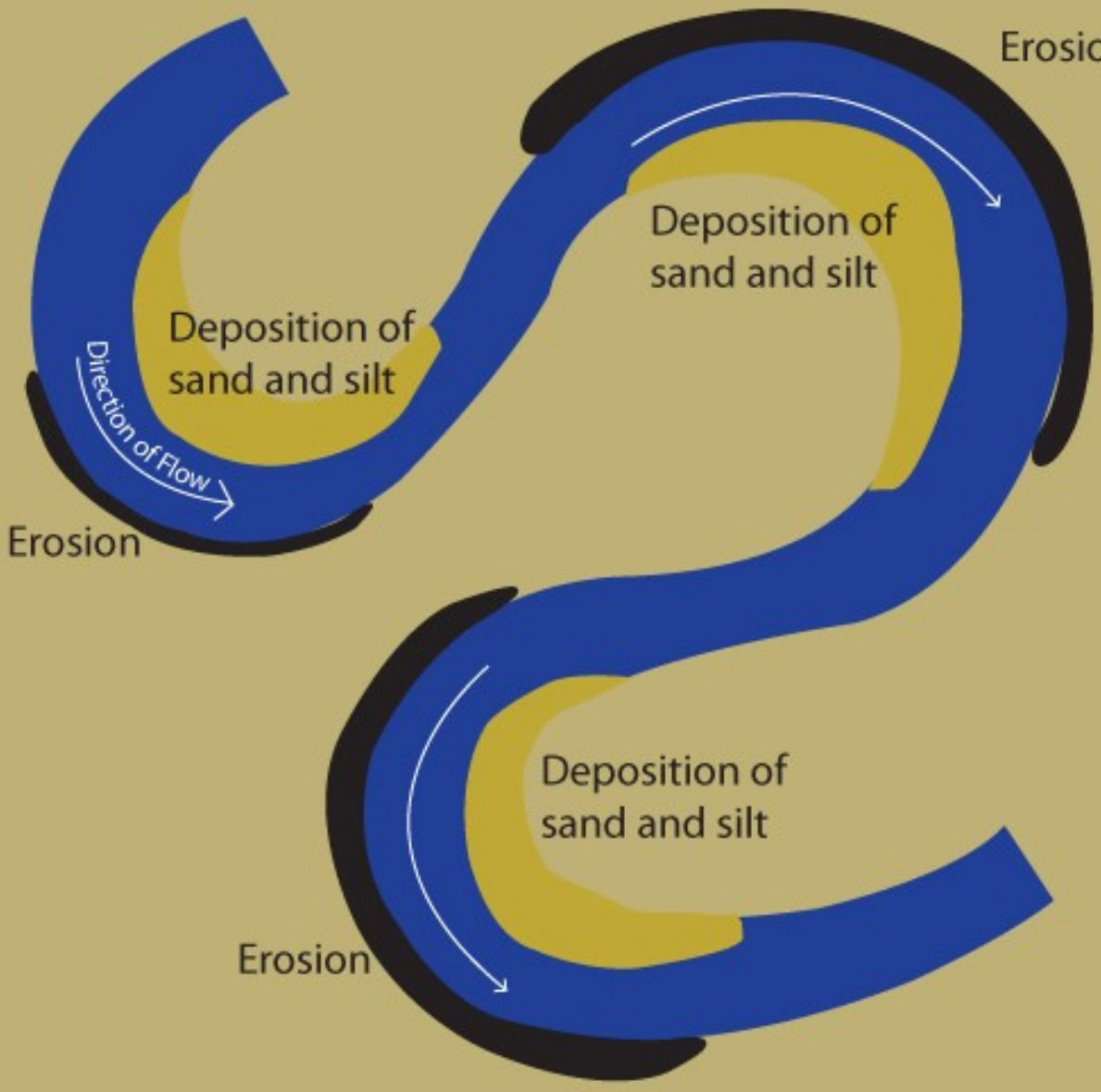
Erosion and Deposition

As water flows down a stream it naturally erodes and deposits soil. As streams meander, the outside portion erodes, while the inside portion deposits soil. Over time stream channels can change their course as they constantly erode and deposit soil.



While erosion is a natural process, it can be minimized by allowing natural vegetation to grow in a riparian zone. The roots of plants and trees will hold soil in place, reducing the effects of erosion.

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Riparian Plants

Riparian forests are differentiated from upland forests by their plant communities. Trees and plants that grow near rivers are adapted to living in or near water. Their roots can often withstand being submerged for several days during high water caused by seasonal flooding.

Water willow is a common plant found along rivers and streams. The dense vegetation of water willow provides excellent habitat for aquatic wildlife and holds the soil in place, reducing soil erosion. During low water conditions in summer, small islands of this common riparian plant often form in the middle of a stream or river.

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Flooding

The tree and plant roots of riparian forests keep streams running narrow and deep, allowing flood waters to rise before overflowing their banks. Forested buffers also slow the movement of runoff from surrounding areas, soaking up water and slowly releasing it over time. Though floods and high water still occur along buffered rivers, they are less common and usually less severe than rivers without a significant buffer zone.

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Protecting Riparian Areas

The Clermont County Park District is working with the East Fork Watershed Collaborative to protect the riparian corridor of the East Fork. The Collaborative is made up of agencies and citizens from Clermont, Brown, Clinton, and Highland Counties. The collaborative works to protect and improve the water quality of the East Fork.

Cain Run, a tributary of the East Fork

The Park District worked with the Collaborative as well as the Clermont County Board of Commissioners, Office of Environmental Quality and the Water Resources Department to purchase lands through an Ohio EPA Water Resource Restoration Sponsorship grant. These river corridor lands will be preserved as natural areas.

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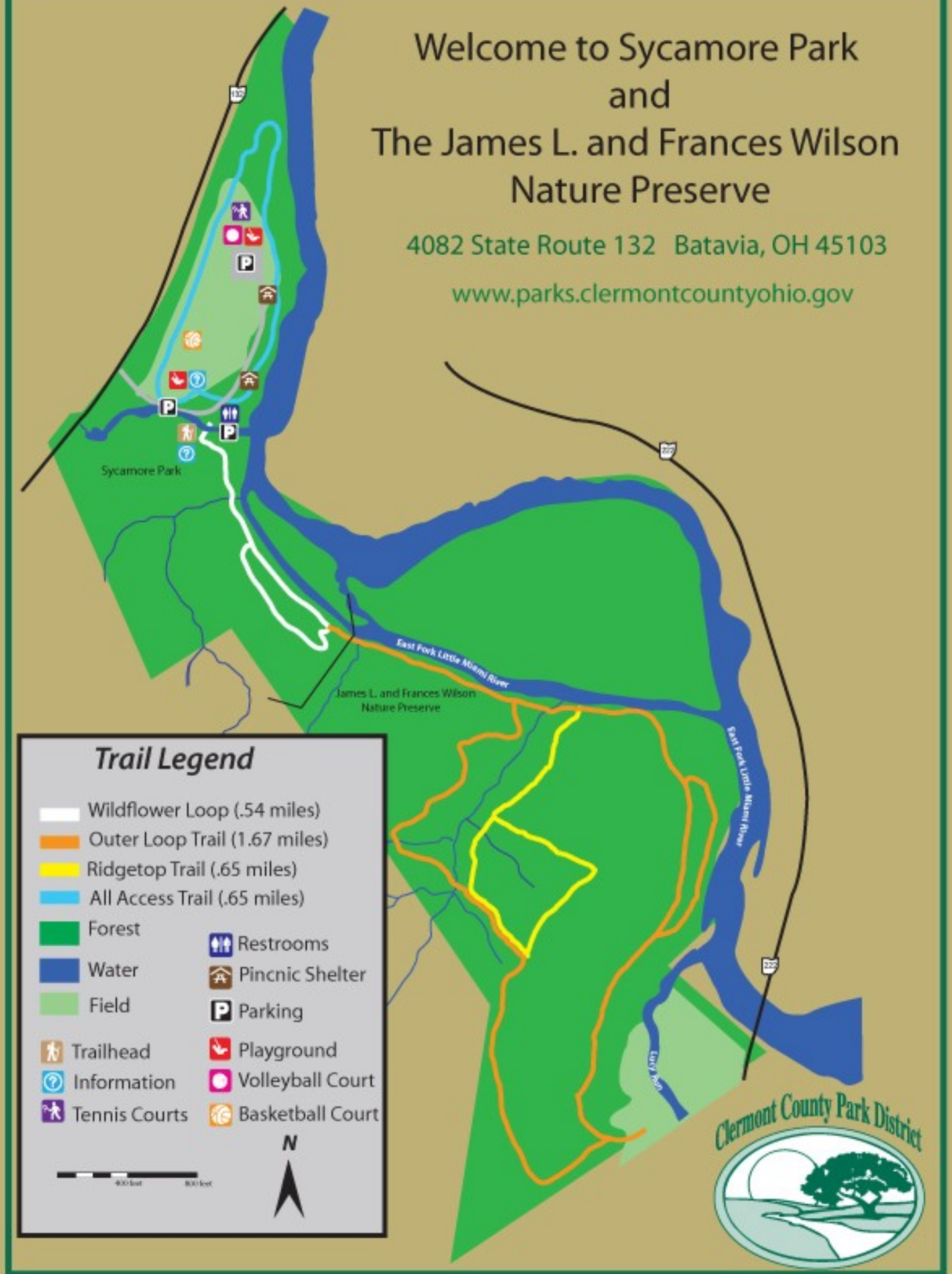
Welcome to Sycamore Park and The James L. and Frances Wilson Nature Preserve

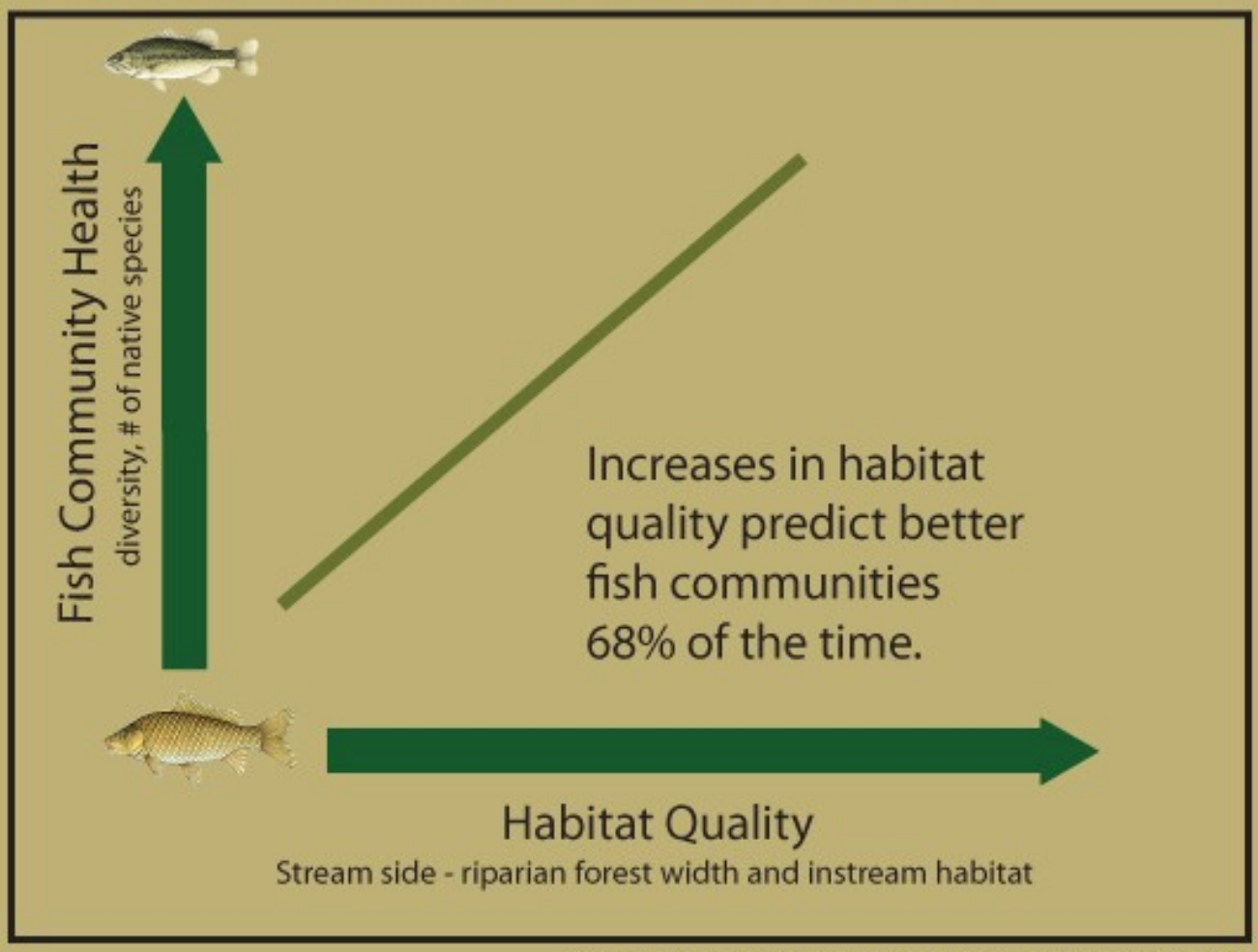
4082 State Route 132 Batavia, OH 45103

www.parks.clermontcountyohio.gov



Water Quality

Riparian forests improve the water quality of streams by providing shade and cooling the water. As water temperatures decrease, the amount of oxygen it can hold increases. Streams with higher levels of dissolved oxygen support a greater diversity of fish and aquatic macroinvertebrates.



Source: Clermont County Office of Envrionmental Quality

The Clermont County Office of Environmental Quality monitors several water testing stations along the East Fork. This particular section of the East Fork is considered by the Ohio EPA to be exceptional warm water habitat.

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Riparian Forest Threats

Though extremely beneficial, riparian forests face many threats, including urban development, agriculture and invasive species. Degrading or destroying these buffers causes many negative consequences, most importantly lower water quality and a loss of habitat both above and below the water.

Photo courtesy: Ohio Environmental Protection Agency

A stream without a proper riparian buffer.

Photo courtesy: United States Geological Survey

Even in agrigultural areas a small riparian zone can have a positive impact on water quality.

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